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10/016,192	12/12/2001	Uri Wilensky	045191.0001	4239

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EXAMINER
SILVER, DAVID

ART UNIT	PAPER NUMBER
2128	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
		10/016,192	WILENSKY ET AL.
Office Action Summary		Examiner	Art Unit
		David Silver	2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 February 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-14</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-14</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>03 May 2002</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1. Claims 1-14 were originally presented for examination.

2. Claims 1-14 were rejected.

3. Claims 1-14 are currently pending in Instant Application.

4. The Instant Application is not currently in condition for allowance.

Response to Arguments

5. Applicant's arguments filed 2/22/2006 have been fully considered but they are not persuasive for the

reasons enumerated below.

Response: Claim Language Clarification

6. The Examiner thanks the Applicants for amending claim 1 to clarify the claim language.

Response: Abstract Objection

7. The Examiner thanks the Applicants for amending the Abstract to comply with 37 CFR 1.72.

Objection is withdrawn.

Response: 35 USC 102 Rejection

8. Applicants argue primarily that:

"Having specifically structured the claimed invention to recite that the server computing device collects remote inputs and coordinates the interaction of the remote agents in a centralized simulation, Applicants respectfully submit that Ulrich fails to disclose a central server which "coordinates the interaction of the remote agents based upon the collected object control node information and control instructions" to enable the coordinated and interactive simulations of a complex and dynamic system." **(page 8 para 3)**

Applicants appears to be arguing that Ulrich does not disclose that the simulation is performed in the

centralized server **(page 8 para 1-3)**.

Applicants point to **(Specification page 8 para 23)** and quote:

"By centrally locating the modeling, analysis and display tools at the server 109, the aggregated results of the individual objects' behavior (controlled by the remote device inputs) can be efficiently simulated, thereby avoiding the complexity and time delays associated with distributing such functionality amongst the remote devices."

Examiner Response:

Applicants' attention is drawn to **(col: 11 line: 31-64)** which discloses the hub (centrally

located server) coordinating the interaction of the remote agents based on the collected information and

instructions.

With emphasis on **(col: 11 line: 45-54)** it is clear that the hub receives the control information

and instructions on **(col: 11 line: 31-40)**. Furthermore, it is clear that the hub coordinates the

interaction of the agents based on that data **(43-61)** where the hub disseminates the interactions of

each remote agent amongst the others to update their positions. Therefore, coordinating their

interactions based on the collected data.

Additionally, it seems the Applicants are arguing that the central server of their claimed invention

performs a modeling of the remote agents. This however is not claimed. The central server *collects* data

from remote agents and *coordinates* the interaction of remote agents. It is asserted that the claimed

invention does not require that the central server perform the modeling of the agents, none the less the

Examiner has traversed this argument above. Although the claims are interpreted in light of the

specification, limitations from the specification are not read into the claims. *See In re Van Geuns, 988*

F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

9.   Applicants further argue that:

The central server does not have modeling tools, analysis tools, and display tools.

Examiner Response:

Applicants attention is drawn to **(col: 10 line: 2-4)**, which was cited in claim 5. This portion

clearly points out that the hub (central server) has display tools which display information to the user.

Applicants attention is drawn to the previous Examiner Response section which discloses modeling and

analysis tools.

10. Applicants further argue that:

"One particularly glaring deficiency is that Ulrich entirely fails to teach or disclose the recited server-

side "object-based parallel modeling language component" that coordinates remote inputs at the

server to efficiently simulate a complex system of remote and independent inputs.

Examiner Response:

The exercise machines as well as the users disclosed by Ulrich are treated as **objects**. This is

clear from the disclosure **(col: 10 line: 2-7)**: "the central hub presenting each user with a pre-set menu from which the user selects his persona"; "distributing packaged software with a set of pre-prepared persona". This is made clear further by **(col: 11 line: 46-49)**: "If it is an update the hub records the new state of the user's icon/object by referencing an externally or internally maintained object database which contains the location, etc. data on all users in the environment." Therefore, Ulrich indeed discloses an object-based modeling component.

Furthermore, Ulrich discloses that the exercise equipment works at the same time, and that the hub communicates with these machines while they are operating in parallel **(col: 11 line: 31-64)**. Therefore, the hub (central server) is modeling the environment while the exercise machines are operating in parallel. The hub inherently has a parallel modeling language component in order to communicate properly with the machines. Therefore, Ulrich indeed discloses a parallel modeling language.

Therefore, Ulrich discloses an object-based parallel modeling language.

11. Regarding claims 8-14, Applicants have made no specific arguments.

The rejections of claims 1-14 are therefore maintained.

Response: Additional Examiner Notes

12. It is further noted the Applicants specification, particularly **(para 7),** discloses object-based parallel computer modeling languages have been well known and developed by Resnick & Wilensky, '93; '95, '98). This object-based parallel computer modeling languages does not define an "object-based parallel computer modeling language". Absent an explicit definition the term takes its ordinary meaning in the art, and was interpreted as such.

The arguments Applicants arguments with respect to claims 1-7 are found unpersuasive for the reasons enumerated above.

13. Furthermore, US Patent 5,333,286 discloses the Applicants' invention as "a system for remotely monitoring the status of a plurality of copiers from a central location." Abstract: "A system for automatically, **remotely monitoring** the **operational status** of and initiating **operational**

commands in **one or more copy** machines each having a copier **computer** therein for

determining **copier status and controlling operation** of the copy machine including an **interface**

in the copier to **monitor status information of the remote location** from the copier computer

and receive and input operational commands from the remote location into the copy machine and a

communication link between the individual copiers and the remote location. The system utilizes a

scanner to respectively monitor the copiers which can **poll** each of the copiers at a uniform rate or,

when **requested by the user at the central location, ...**"

This art rejection was not applied because it would have been cumulative to the applied art rejection.

Claim Objections

14. Claim 8 is objected to because of the following informalities: "the coordination" should be changed

to "a coordination". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ulrich, US Patent 5,466,200.

As per claim 1, Ulrich discloses a modeling device for a simulation of complex dynamic systems,

comprising:

a plurality of remote agents, each remote agent comprising:

logic to receive input data **(Fig 1 item 14Fig 2A item 28 and 30; col 1 line 65 - col**

2 line 2);

object control node information corresponding to the performance of the remote agent

and the relationship of the remote agent to the simulation **(col.: 2 lines: 41-55; abstract lines**

8-11);

control instructions to convert the input data into the control node information **(col.: 5**

lines: 37-42); and

logic to transmit the object control node information and the control instructions to a

server computing device **(col.: 7 lines: 35-52)**; and

the server computing device, comprising:

an object-based parallel modeling language component that collects object

control node information and control instructions corresponding to each of the

remote agents of the plurality of remote agents and coordinates the interaction

of the remote agents based upon the collected object control node information

and control instructions **(col.: 8 lines: 53-55, Figure 8 and 9 item 104;**

Figure 11 object-based parallel modeling language component ... item

138/136); and

logic to transmit interactive simulation information based upon the coordination of the

interaction of the remote agents to the plurality of remote agents **(col.: 10 lines: 65-66)**.

As per claim 2, Ulrich discloses a modeling device of claim 1, the server computing device further

comprising:

modeling tools **(col.: 4 lines: 9-11)**; analysis tools **(col.: 5 lines: 46-47 and 52-54; Figure**

11); and display tools **(Figure 2A item 35, figure 10 item 20)**.

As per claim 3, Ulrich discloses a modeling device of claim 1, wherein

the interactive simulation information is transmitted to a particular remote agent only if the

simulation information of the particular remote agent is impacted by control node information

and control instructions of a second remote agent **(col.: 9 lines: 7-10)**.

As per claim 4, Ulrich discloses a modeling device of claim 1, wherein

the input information comprises: input data **(Figure 13 item 156)**; and control instructions

corresponding to the remote agent **(Figure 13 items 180 and 182)**.

As per claim 5, Ulrich discloses a modeling device of claim 1, the server further comprising:

a central control panel comprising **(Figure 8 item 104; figure 2A item 34)**:

a graphical display for viewing the simulation information **(col.: 10 lines: 2-4)**.

As per claim 6, Ulrich discloses a modeling device of claim 5, wherein

the graphical display also displays input information and status data for a selected remote agent

of the plurality of remote agents **(col.: 10 lines: 2-7 input information ... pre-prepared**

persona, status data ... packaged software).

As per claim 7, Ulrich discloses a modeling device of claim 5, the central control panel further comprising:

a plurality of user input devices for providing direct interaction with the object-based parallel

modeling language component by enabling a user to input information and control instructions,

both corresponding to a selected remote device **(Figure 12, Figure 2A item 27)**.

As per claim 8, Ulrich discloses a method of producing a coordinated and interactive simulation of a

dynamic system, comprising the steps of:

defining a set of remote agents, wherein each remote agent performs the steps of:

receiving input data **(Fig 1 item 14Fig 2A item 28 and 30; col 1 line 65 - col 2 line**

2);

transmitting the input data and control instructions relating to a corresponding remote

agent of the set of remote agents to a server computing device **(col.: 7 lines: 35-52)**;

and collecting the input data and control instructions from each of the remote agents of

the plurality of remote agents at the server computing device **(col.: 8 lines: 53-55, Figure 8**

and 9 item 104, Figure 11 step 56; col 9 lines 11-17);

coordinating the interaction of the remote agents at the server computing device based

upon the input data and the control instructions, each set of control instructions corresponding to

the set of control instructions of each remote agent of the plurality of remote agents **(col.: 9**

lines: 11-17);

and transmitting interactive simulation information based upon the coordination of the

interaction of the remote agents from the server computing device to the plurality of remote

agents **(col.: 9 lines: 11-17)**.

As per claim 9, Ulrich discloses a simulation method of claim 8, the coordinating step comprising the

steps of:

> analyzing the input data corresponding to a particular remote agent based upon control

> instructions corresponding to the particular remote agent **(col.: 5 lines: 52-54)**;

> modeling the interactive simulation information based upon an interaction between the analyzed

> input data from the remote agents **(col.: 5 lines: 35-37)**;

> and displaying a simulation based upon the interactive simulation information **(col.: 5 lines: 35-**

37).

As per claim 10, Ulrich discloses a simulation method of claim 8, wherein

> the interactive simulation information is transmitted to a particular remote agent only if the

> simulation information for the particular remote agent is impacted by control node information

> and control instructions of a second remote agent **(col.: 9 lines: 7-10)**.

As per claim 11, Ulrich discloses a simulation method of claim 8, further comprising the step of:

> defining sets of control instructions **(col.: 5 lines: 37-42)**,

> > each set of control instructions corresponding to a remote agent of the plurality of

> remote agents **(col.: 6 lines: 44-47)**;

> and input to each particular remote agent the set of control instructions corresponding to the

particular remote agent **(col.: 6 lines: 44-47)**.

As per claim 12, Ulrich discloses a simulation method of claim 8, further comprising the step of:

> displaying on a central control panel coupled to the server computing device a graphical display

> of the interactive simulation information **(Figure 2A item 35, col 9 lines 1-5)**.

As per claim 13, Ulrich discloses a simulation method of claim 12, further comprising the step of:

> displaying on the central control panel input information and status data for a selected remote

> agent of the plurality of remote agents **(col.: 10 lines: 2-7 input information ... pre-**

> **prepared persona, status data ... packaged software)**.

As per claim 14, Ulrich discloses a simulation method of claim 12, further comprising the step of:

> entering input information and control instructions, both corresponding to a selected remote

device, at the server computing device **(Figure 10; figure 2A item 30; Figure 7 Figure 8 item 106/122/110/108)**.

Conclusion

16. All claims are rejected.

17. The Instant Application is not currently in condition for allowance.

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure but was not applied because it would be cumulative to the applied rejection.

- **US 5,333,286**: "The present invention relates to a system for remotely monitoring the status of a plurality of copiers from a central location." Abstract: "A system for automatically, **remotely monitoring** the **operational status** of and initiating **operational commands** in **one or more copy** machines each having a copier **computer** therein for determining **copier status and controlling operation** of the copy machine including an **interface** in the copier to **monitor status information of the remote location** from the copier computer and receive and input operational commands from the remote location into the copy machine and a communication link between the individual copiers and the remote location. The system utilizes a scanner to respectively monitor the copiers which can **poll** each of the copiers at a uniform rate or, when **requested by the user at the central location**, vary the poll rate of one or more of the copiers to poll the selected copier with increased regularity, slowing the polling rate of the other copiers, to provide a real-time monitoring of the selected copier."

- **US 6,405,135**: "As utilized herein, the terms computer server and sensor interface are used to describe a model of interaction in a distributed system in which a program at one site sends information to a program at another site and waits for a response. The requesting program at the site is the software utilized by the sensor interface and the program which responds and reacts to the information is called the 'server'."

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the

extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the

mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of

this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened

statutory period, then the shortened statutory period will expire on the date the advisory action is mailed,

and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS

from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should

be directed to David Silver whose telephone number is (571) 272-8634. The examiner can normally be

reached on Monday thru Friday, 10am to 6:30pm. If attempts to reach the examiner by telephone are

unsuccessful, the examiner's supervisor, Kamini Shah can be reached on 571-272-2279. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained from

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866-217-9197 (toll-free).

David Silver
Patent Examiner
Art Unit 2128

/ds/